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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | | |
|--|-------------|----------------------|---------------------|------------------|--|--|
| 10/723,328 | 11/26/2003 | Victor J. Griswold | 72255/33234 | 9474 | | |
| 23380 | 7590 | 07/10/2007 | EXAMINER | | | |
| TUCKER ELLIS & WEST LLP 1150 HUNTINGTON BUILDING 925 EUCLID AVENUE CLEVELAND, OH 44115-1414 | | | | PARK, JUNG H | | |
| ART UNIT | | PAPER NUMBER | | | | |
| 2616 | | | | | | |
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| 07/10/2007 | | PAPER | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/723,328 | GRISWOLD ET AL. | |
| | Examiner | Art Unit | |
| | Jung Park | 2616 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-4, 8-16, 20-28 and 32-36 is/are rejected.
- 7) Claim(s) 5-7, 17-19 and 29-31 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 1, 3, 10-12, 13, 15, and 22-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Hundscheidt et al. (US 2006/0034278, "Hundscheidt").

Regarding claims 1 and 13, Hundscheidt discloses a method [and means] for delivery of a plurality of multicast data streams over a network, the steps comprising:

- observing (observing for determining whether the mobile stations is allowed to register for multicast group, see ¶.101), at an access point (GGSN, see fig.7, ¶.101, and ¶.64), a registration message (IGMP message, see fig.7, ¶.101, and ¶.64) that originated from at least one associated station (MS, see fig.7, ¶.101, and ¶.64);
- determining (determining whether the mobile stations is allowed to register for multicast group, see ¶.101), from the registration message (note: IGMP), a multicast data stream to which this associated station subscribes (subscriber's register for specific multicast group, see fig.7, ¶.101, and ¶.64);
- tracking the multicast data stream (keeps track of multicast groups, see ¶.64, and ¶.101) for which all associated stations subscribing to the steam support low packet-delivery latency (active groups which are ready to receive packets); and
- transmitting the multicast data stream immediately to all associated low-latency stations (delivery multicast data to active mobile stations, see ¶.69 and ¶.64).

Regarding claims 3 and 15, Hundscheidt discloses, "wherein the registration is accomplished using Internet Group Multicast Protocol (see ¶.64)."

Regarding claims 10 and 22, Hundscheidt discloses, "wherein the immediately transmitting step is applied at the Internet Protocol level (IP multicast, see ¶.5)."

Regarding claims 11 and 23, Hundscheidt discloses, "wherein the associated station is a portable personal computer (mobile units, see fig.3)."

Regarding claims 12 and 24, Hundscheidt discloses, "wherein the associated station is a personal data assistant (mobile units, see fig.3)."

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 25, 27, 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hundscheidt.

Regarding claim 25, it is a claim corresponding to claim 1, except the limitation of computer readable medium. However, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to use software-based machines. The benefit using computer-readable medium is that program can be

changed, upgraded and added new features easily. Therefore, this claim is rejected for the similar reasons set forth in the rejection of the claims.

Regarding claims 27 and 34-36, they are claims corresponding to claims 3, & 10-12, respectively and are therefore rejected for the similar reasons set forth in the rejection of the claims.

5. Claims 2, 14, and 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hundscheidt in view of Engwer et al. (US 7082114, "Engwer").

Regarding claims 2, 14, and 26, Hundscheidt discloses the method of performing multicast within a communication network, but does not explicitly disclose, "wherein the access point is an 802.11 access point." However, Engwer discloses an Access Point in full compliance with IEEE 802.11 (see fig.10, col.3, ln.30-32)." Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to apply the multicast method using IGMP message disclosed by Hundscheidt into the communication system between wireless unit (WU) and access point (AP) of Engwer in order to adapt widely used IEEE 802.11 protocol for wireless LAN communication.

6. Claims 4, 16, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hundscheidt in view of Engwer and further in view of Romans (US 2002/0016151, "Romans").

Regarding claims 4, 16, and 28, Hundscheidt and Engwer lacks what Romans discloses, "wherein each low-latency associated station is in 802.11 active operation (active state, see ¶.16)." Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to apply the active operation method of

Romans into the multicast communication of Hundscheidt and Engwer in order to receive the beacon signal for further processing data packets.

7. Claims 8, 9, 20, 21, 32, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hundscheidt in view of Brown (US 6754211, "Brown").

Regarding claims 8, 20, and 32, Hundscheidt lacks what Brown discloses, "wherein the multicast data stream is transmitted to a plurality of stations operating on the same virtual local area network (IP multicast data transfer to Virtual LAN, fig.1; col.1, ln.15-17; col.1, ln.66-67)." Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to apply the method of forwarding IP multicast data packet to multicast group using an identification for a Virtual LAN taught by Brown into the multicast transfer method of Hundscheidt in order to send only to all members of same group/same VLAN.

Regarding claims 9, 21, and 33, Hundscheidt lacks what Brown discloses, "wherein the multicast data stream is transmitted to a plurality of stations operating on a plurality of virtual local area networks (IP multicast data transfer to Virtual LAN, fig.1; col.1, ln.15-17; col.1, ln.66-67)." Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to apply the method of forwarding IP multicast data packet to multicast group using identifications for Virtual LANs taught by Brown into the multicast transfer method of Hundscheidt in order to forward to all members of a plurality of groups/VLANs.

Allowable Subject Matter

8. Claims 5-7, 17-19, and 29-31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung Park whose telephone number is 571-272-8565. The examiner can normally be reached on Mon-Fri during 6:15-3:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JP
Jung Park
Patent Examiner

Chau T. Nguyen

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SUPERVISORY PATENT EXAMINER
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